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EXAMINER

DWIVEDI, MAHESH H

ART UNIT	PAPER NUMBER
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2168

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/629,956	Applicant(s) REVEL, DANIEL	
	Examiner Mahesh H. Dwivedi	Art Unit 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 15-17, 24-26 and 29-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 18-23, 27, 28 and 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>07/30/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 07/30/2003 has been received, entered into the record, and considered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Election/Restrictions

2. Claims 15-17, 24-26, and 29-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 03/15/2006.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Regarding claims 2 and 9, the phrase "**may be**" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claims 3 and 10 are rejected for incorporating the deficiencies of claims 2 and 9 respectively.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 4-8, 11-14, 18-19, 22-23, 27-28, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vidal et al.** (U.S. PG PUB 2002/0078241) and in view of **Unger et al.** (U.S. Patent 5,991,713).

7. Regarding claim 1, **Vidal** teaches a method comprising:

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- A) receiving a request for information from a requestor (Paragraph 36, Figure 3);
- B) compressing the requested information using the compression dictionary (Paragraphs 39-41, Figures 5-6); and

Vidal does not explicitly teach:

- C) caching a compression dictionary;
- D) sending the compressed information to the requestor with an identifier of the compression dictionary.

Unger, however, teaches “**caching a compression dictionary**” as “If the receiving computer does not already have copies of those dictionaries either cached” (Column 15, lines 41-42) and “there is a similar advantage that accrues when a caching mechanism is employed for the dictionaries” (Column 15, lines 54-55), and “**sending the compressed information to the requestor with an identifier of the compression dictionary**” as “when files compressed by the above methods are transmitted in a distributed system the unique identifications of the required dictionaries that were employed in the compression can be transmitted” (Column 15, lines 38-41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Unger’s** would have allowed **Vidal’s** to provide a method to prevent several inefficiencies such as constantly updating entire dictionaries, breakdowns of large dictionaries, and the inability to optimize dictionaries with large tokens in data compression and transmission, as noted by **Unger** (Column 1, lines 60-67-

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Column 2, lines 1-14).

Regarding claim 4, **Vidal** further teaches a method comprising:

A) decompressing a received request for information from a requestor (Paragraphs 43-44, and 47, Figure 6).

Regarding claim 5, **Vidal** further teaches a method comprising:

A) creating a compression dictionary (Paragraphs 38-39, Figures 5-6).

Regarding claim 6, **Vidal** further teaches a method comprising:

A) A computer readable media with instructions thereon for performing the method of claim 1 (Figure 2).

Regarding claim 7, **Vidal** teaches a method comprising:

A) sending a request for information to a server (Paragraph 36, Figure 3);
B) receiving the requested information, wherein the information received is compressed (Paragraphs 43-44, and 47, Figures 5-6); and
C) decompressing the requested information using the compression dictionary (Paragraphs 43 and 47, Figure 6).

Vidal does not explicitly teach:

D) caching a compression dictionary;

Unger, however, teaches “**caching a compression dictionary**” as “If the receiving computer does not already have copies of those dictionaries either

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cached" (Column 15, lines 41-42) and "there is a similar advantage that accrues when a caching mechanism is employed for the dictionaries" (Column 15, lines 54-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Unger's** would have allowed **Vidal's** to provide a method to prevent several inefficiencies such as constantly updating entire dictionaries, breakdowns of large dictionaries, and the inability to optimize dictionaries with large tokens in data compression and transmission, as noted by **Unger** (Column 1, lines 60-67-Column 2, lines 1-14).

Regarding claim 8, **Vidal** further teaches a method comprising:

- A) A) compressing the request for information (Paragraphs 39-41, Figures 5-6).

Regarding claim 11, **Vidal** further teaches a method comprising:

- A) obtaining a compression dictionary (Paragraph 44, Figures 5-6).

Regarding claim 12, **Vidal** does not explicitly teach a method comprising:

- A) wherein the information received comprises a compression dictionary identifier;
- B) using the compression dictionary identifier included with the information received to determine if the proper compression dictionary is cached; and

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C) obtaining the proper compression dictionary if the proper compression dictionary is not in cache.

Unger, however, teaches **“wherein the information received comprises a compression dictionary identifier”** as “when files compressed by the above methods are transmitted in a distributed system the unique identifications of the required dictionaries that were employed in the compression can be transmitted” (Column 15, lines 38-41), **“using the compression dictionary identifier included with the information received to determine if the proper compression dictionary is cache”** as “A further step is determining which of the parsed words are not present in the predetermined dictionary and creating at least one supplemental dictionary including the parsed words that are not present in the predetermined dictionary” (Column 2, lines 44-48), and **“obtaining the proper compression dictionary if the proper compression dictionary is not in cache”** as ““A further step is determining which of the parsed words are not present in the predetermined dictionary and creating at least one supplemental dictionary including the parsed words that are not present in the predetermined dictionary” (Column 2, lines 44-48)”.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Unger’s** would have allowed **Vidal’s** to provide a method to prevent several inefficiencies such as constantly updating entire dictionaries, breakdowns of large dictionaries, and the inability to optimize dictionaries with large tokens in

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data compression and transmission, as noted by **Unger** (Column 1, lines 60-67-Column 2, lines 1-14).

Regarding claim 13, **Vidal** further teaches a method comprising:

A) wherein calculating a compression dictionary identifier may include determining the identifier using a derived hash value for the dictionary (Paragraph 55).

Regarding claim 14, **Vidal** further teaches a method comprising:

A) wherein the compression dictionary is retrieved from a network location (Paragraphs 34 and 44, Figures 2, and 5-6).

Regarding claim 18, **Vidal** teaches a method comprising:

A) creating a compression dictionary (Paragraphs 38-39, Figures 5-6);
B) retrieving the compression dictionary from the network (Paragraph 44, Figures 5-6); and
C) compressing and decompressing messages received or sent according to the compression dictionary (Paragraphs 39-41, 43, and 47, Figures 5-6).

Vidal does not explicitly teach:

D) publishing the compression dictionary on a network resource, wherein the compression dictionary is available upon request across the network;
E) caching the compression dictionary (Unger, Column 15, lines 38-59);

Unger, however, teaches “**publishing the compression dictionary on a network resource, wherein the compression dictionary is available upon request across the network**” as “when files compressed by the above methods are transmitted in a distributed system the unique identifications of the required dictionaries that were employed in the compression can be transmitted” (Column 15, lines 38-41), and “**caching a compression dictionary**” as “If the receiving computer does not already have copies of those dictionaries either cached” (Column 15, lines 41-42) and “there is a similar advantage that accrues when a caching mechanism is employed for the dictionaries” (Column 15, lines 54-55).

The examiner notes that a “**distributed system**” (Column 15, line 39) is analogous to a presenting information on a publicly accessible network.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Unger’s** would have allowed **Vidal’s** to provide a method to prevent several inefficiencies such as constantly updating entire dictionaries, breakdowns of large dictionaries, and the inability to optimize dictionaries with large tokens in data compression and transmission, as noted by **Unger** (Column 1, lines 60-67-Column 2, lines 1-14).

Regarding claim 19, **Vidal** does not explicitly teach a method comprising:

A) wherein the compression dictionary comprises compressed representations of Extensible Markup Language (XML) tags.

Unger, however, teaches “**wherein the compression dictionary comprises compressed representations of Extensible Markup Language (XML) tags**” as “the methods used to determine the scope of hypertext material, such as but not limited to tagged HTML, SGML, or XML files, to be included in a collection may either be manually specified or automatically developed from the linked structures of the material” (Column 5, lines 1-5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Unger’s** would have allowed **Vidal’s** to provide a method to prevent several inefficiencies such as constantly updating entire dictionaries, breakdowns of large dictionaries, and the inability to optimize dictionaries with large tokens in data compression and transmission, and enable compression dictionaries to service multiple hypertext languages to provide a universal system for compression, as noted by **Unger** (Column 1, lines 60-67-Column 2, lines 1-14, Column 5, lines 1-5)).

Regarding claim 22, **Vidal** further teaches a method comprising:

- A) creating a list of one or more files (Paragraphs 39-40, Figures 5-6);
- B) extracting portions of the files from the list of one or more files (Paragraphs 39-40, Figures 5-6);
- C) creating a compression dictionary including portions extracted from the one or more files (Paragraphs 39-40, Figures 5-6).

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Regarding claim 23, **Vidal** further teaches a method comprising:

A) wherein the network resource comprises a web service interface (Paragraph 34, Figure 2).

Regarding claim 27, **Vidal** teaches a method comprising:

A) receiving a compressed message (Paragraphs 44 and 55, Figures 5-6);

Vidal does not explicitly teach:

B) wherein the compressed message contains an identifier for a compression dictionary used to compress the message;

C) comparing the compression dictionary identifier of the received message with an identifier of a cached compression dictionary;

D) wherein if the compression dictionaries match, the compressed message is decompressed; and

E) further wherein, if the compression dictionaries do not match, obtaining a copy of the proper compression dictionary.

Unger, however, teaches **“wherein the compressed message contains an identifier for a compression dictionary used to compress the message”** as “when files compressed by the above methods are transmitted in a distributed system the unique identifications of the required dictionaries that were employed in the compression can be transmitted” (Column 15, lines 38-41), **“comparing the compression dictionary identifier of the received message with an identifier of a cached compression dictionary”** as “A further step is determining which of the parsed words are not present in the predetermined

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dictionary and creating at least one supplemental dictionary including the parsed words that are not present in the predetermined dictionary” (Column 2, lines 44-48), **“wherein if the compression dictionaries match, the compressed message is decompressed”** as “A further step is determining which of the parsed words are not present in the predetermined dictionary and creating at least one supplemental dictionary including the parsed words that are not present in the predetermined dictionary” (Column 2, lines 44-48)”, and **“if the compression dictionaries do not match, obtaining a copy of the proper compression dictionary”** as “A further step is determining which of the parsed words are not present in the predetermined dictionary and creating at least one supplemental dictionary including the parsed words that are not present in the predetermined dictionary” (Column 2, lines 44-48)”.

The examiner notes that it is common knowledge that if there are no returned results from the process of **“determining which of the parsed words are not present”** (Column 2, lines 44-45), then normal decompression occurs.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Unger’s** would have allowed **Vidal’s** to provide a method to prevent several inefficiencies such as constantly updating entire dictionaries, breakdowns of large dictionaries, and the inability to optimize dictionaries with large tokens in data compression and transmission, as noted by **Unger** (Column 1, lines 60-67-Column 2, lines 1-14).

Regarding claim 28, **Vidal** does not explicitly teach a method comprising:

A) wherein the copy of the proper compression dictionary is cached.

Unger, however, teaches “**wherein the copy of the proper compression dictionary is cached**” as “A further step is determining which of the parsed words are not present in the predetermined dictionary and creating at least one supplemental dictionary including the parsed words that are not present in the predetermined dictionary” (Column 2, lines 44-48).

The examiner notes that “supplemental dictionary” (Column 2, line 46) is analogous to “**proper compression dictionary**”.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Unger’s** would have allowed **Vidal’s** to provide a method to prevent several inefficiencies such as constantly updating entire dictionaries, breakdowns of large dictionaries, and the inability to optimize dictionaries with large tokens in data compression and transmission, as noted by **Unger** (Column 1, lines 60-67-Column 2, lines 1-14).

Regarding claim 35, **Vidal** teaches a method comprising:

A) creating a compression dictionary tailored for selected information
(Paragraphs 38-39, Figures 5-6);

B) receiving a request for at least a portion of the selected information from a requestor (Paragraph 36, Figure 3);

C) customizing the information for the requestor (Paragraph 36);

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D) dynamically compressing the customized requested information using the compression dictionary (Paragraph 40); and

Vidal does not explicitly teach:

E) sending the compressed information to the requestor with an identifier of the compression dictionary (Paragraph 44, Figures 5-6).

Unger, however, teaches “**sending the compressed information to the requestor with an identifier of the compression dictionary**” as “when files compressed by the above methods are transmitted in a distributed system the unique identifications of the required dictionaries that were employed in the compression can be transmitted” (Column 15, lines 38-41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Unger’s** would have allowed **Vidal’s** to provide a method to prevent several inefficiencies such as constantly updating entire dictionaries, breakdowns of large dictionaries, and the inability to optimize dictionaries with large tokens in data compression and transmission, as noted by **Unger** (Column 1, lines 60-67-Column 2, lines 1-14).

8. Claims 2-3, 9-10, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vidal et al.** (U.S. PG PUB 2002/0078241) and in view of **Unger et al.** (U.S. Patent 5,991,713) as applied to claims 1, 4-8, 11-14, 18-19, 22-23, 27-28, and 35 above, and further in view of **Jakopac et al.** (U.S. PG PUB 2002/0029229).

9. Regarding claims 2 and 9, **Vidal** and **Unger** do not explicitly teach a method comprising:

A) wherein the compressed information may be decompressed directly to an object model document.

Jakopac, however, teaches “**wherein the compressed information may be decompressed directly to an object model document**” as “the systems and methods of this invention can be implemented based on the DOM that supports inflation of compressed files” (Paragraph 70) and “An xmlzip compatible DOM implementation could open the xmlzip file, navigate through all nodes in the document tree and write out the corresponding ndoes” (Paragraph 74).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Jakopac’s** and **Unger’s** would have allowed **Vidal’s** to provide applications to enable large XML files to be directly processed, as noted by **Jakopac** (Paragraph 38).

Regarding claims 3 and 10, **Vidal** and **Unger** do not explicitly teach a method comprising:

A) wherein the object model comprises Document Object Model (DOM).

Jakopac, however, teaches “**wherein the object model comprises Document Object Model (DOM)**” as “the systems and methods of this invention can be implemented based on the DOM that supports inflation of compressed

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files" (Paragraph 70) and "An xmlzip compatible DOM implementation could open the xmlzip file, navigate through all nodes in the document tree and write out the corresponding ndoes" (Paragraph 74).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Jakopac's** and **Unger's** would have allowed **Vidal's** to provide applications to enable large XML files to be directly processed, as noted by **Jakopac** (Paragraph 38).

Regarding claim 20, **Vidal** and **Unger** do not explicitly teach a method comprising:

A) wherein the compressing and decompressing messages comprises compressing and decompressing messages directly to and from an object model document.

Jakopac, however, teaches "**wherein the compressing and decompressing messages comprises compressing and decompressing messages directly to and from an object model document**" as "the systems and methods of this invention can be implemented based on the DOM that supports inflation of compressed files" (Paragraph 70) and "An xmlzip compatible DOM implementation could open the xmlzip file, navigate through all nodes in the document tree and write out the corresponding ndoes" (Paragraph 74).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because

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teaching **Jakopac's** and **Unger's** would have allowed **Vidal's** to provide applications to enable large XML files to be directly processed, as noted by **Jakopac** (Paragraph 38).

Regarding claim 21, **Vidal** and **Unger** do not explicitly teach a method comprising:

A) wherein the object model comprises Document Object Model (DOM).

Jakopac, however, teaches “**wherein the object model comprises Document Object Model (DOM)**” as “the systems and methods of this invention can be implemented based on the DOM that supports inflation of compressed files” (Paragraph 70) and “An xmlzip compatible DOM implementation could open the xmlzip file, navigate through all nodes in the document tree and write out the corresponding ndoes” (Paragraph 74).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Jakopac's** and **Unger's** would have allowed **Vidal's** to provide applications to enable large XML files to be directly processed, as noted by **Jakopac** (Paragraph 38).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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U.S. Patent 6,883,137 issued to **Girardat et al.** on 19 April 2005. The subject matter disclosed therein is pertinent to that of claims 1-24 (e.g., methods to use compression dictionaries for data compression and transmission).

U.S. Patent 6,847,315 issued to **Castelli et al.** on 25 January 2005. The subject matter disclosed therein is pertinent to that of claims 1-24 (e.g. methods to use compression dictionaries for data compression and transmission).

U.S. Patent 6,434,561 issued to **Durst et al.** on 13 August 2002. The subject matter disclosed therein is pertinent to that of claims 1-24 (e.g., methods to use cached compression dictionaries for data compression and transmission).

U.S. PGPUB 2003/0031246 issued to **Heath** on 21 March 2006. The subject matter disclosed therein is pertinent to that of claims 1-24 (e.g methods to use compression dictionaries for data compression and transmission).

U.S. Patent 6,088,699 issued to **Gampper et al.** on 11 July 2000. The subject matter disclosed therein is pertinent to that of claims 1-24 (e.g., methods to use compression dictionaries for data compression and transmission).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahesh Dwivedi whose telephone number is (571) 272-2731. The examiner can normally be reached on Monday to Friday 8:20 am – 4:40 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached (571) 272-3642. The fax number

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for the organization where this application or proceeding is assigned is (571) 273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mahesh Dwivedi

Patent Examiner

Art Unit 2168


April 7, 2006


Leslie Wong

Primary Examiner